

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: November 5, 2001, 15:20:30 ; Search time 65.26 Seconds
(without alignments)
341.858 Million cell updates/sec

Title: US-09-593-316-4

Perfect score: 2008
Sequence: I MNRVKRVILSMIVSTIVV.....IKLVKMSQTEKNVKNV 368

Scoring table:
BLOSUM62
Gapop 10.0, Gapext 0.5

Searched: 412676 seqs, 60623988 residues

Total number of hits satisfying chosen parameters: 412676

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 08
Maximum Match 1008
Listing first 45 summaries

Database :

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1: A.Geneseq.0601:*
2: /cgnl_9/gcqdada/geneseq/geneseq/AA1980.DAT:*
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21: /cgnl_9/gcqdada/geneseq/geneseq/AA2000.DAT:*
22: /cgnl_9/gcqdada/geneseq/geneseq/AA2001.DAT:*

```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1711.5	85.2	375	19	AAW49686
2	1707.5	85.0	371	16	AAW85082
3	1707	85.0	376	16	AAW80016
4	1700.5	84.7	371	16	AAW76777
5	1648.5	82.1	359	15	AAW62508
6	1648.5	82.1	359	17	AAW90573
7	1646.5	82.0	363	19	AAW49687
8	1604	79.9	354	19	AAW49688
9	1543	76.8	342	19	AAW49689
10	1476.5	73.5	394	12	AAW13750
11	1476.5	73.5	394	15	AAW45935

12	1476.5	73.5	394	18	AAW13639	Murine alpha(1,3)-galactosyl transferase
13	1326	66.0	313	15	AAW62507	Human A transferase
14	658	32.8	375	15	AAW57021	Human A transferase
15	656	32.7	353	12	AAW11317	Human A transferase
16	656	32.7	353	15	AAW57011	Human A transferase
17	655	32.6	354	12	AAW11789	Human A transferase
18	655	32.6	354	12	AAW11790	Human A transferase
19	655	32.6	354	12	AAW11792	Human A transferase
20	655	32.6	354	15	AAW57020	Human A transferase
21	641	31.9	358	15	AAW57013	Human A transferase
22	639	31.8	354	15	AAW57014	Human A transferase
23	639	31.8	354	15	AAW57016	Human A transferase
24	473	23.6	195	15	AAW57024	Human A transferase
25	271.5	13.5	100	20	AAW26039	Secreted protein
26	266.5	13.3	106	21	AAW86491	Human gene 59-enc
27	253	12.6	154	15	AAW57025	Human gene 59-enc
28	224.5	11.2	90	21	AAW86473	Human secreted pro
29	224.5	11.2	90	21	AAW86489	Human secreted pro
30	224.5	11.2	90	21	AAW86489	Human gene 59-enc
31	102.5	5.1	517	16	AAW66402	GalNAc-transferase
32	102.5	5.1	517	18	AAW16489	Honeybee mellitin
33	102.5	5.1	559	16	AAW66397	Cattle GalNAc-tran
34	102.5	5.1	559	16	AAW66401	GalNAc-transferase
35	102.5	5.1	559	18	AAW16484	Bovine N-acetylgluc
36	101.5	5.1	561	21	AAW43561	Human cancer assoc
37	95	4.7	703	22	AAW70687	Pyrococcus furiosu
38	95	4.7	722	22	AAW70686	Pyrococcus furiosu
39	92.5	4.6	246	16	AAW74036	Human chondrocalci
40	92.5	4.6	1418	21	AAW96124	Collagen type II a
41	92.5	4.6	1487	19	AAW61562	Human type II coll
42	90	4.5	708	20	AAW06547	SV40 large T anti
43	89.5	4.5	1418	15	AAW59751	Type II collagen
44	89.5	4.5	1418	16	AAW71703	Collagen alpha 1 (
45	89.5	4.5	1418	22	AAW35624	Human type II coll

ALIGNMENTS

RESULT 1	AAW49686	standard; Protein: 375 AA.
ID	AAW49686	
XX	AAW49686	
XX	10-NOV-1998 (first entry)	
XX		
DE	Porcine alpha-1,3-galactosyl transferase isoform 1.	
KW	Isoform: porcine; enzyme: alpha-1,3-galactosyl transferase; galactose;	
KW	sugar: N-acetyllactosamine; glycoprotein; glycolipid; antibody; pig;	
KW	graft tissue rejection; organ transplantation; xenotransplant.	
XX		
OS	Sus scrofa.	
XX		
PN	FR2751346-A1.	
PD	23-JAN-1998.	
XX		
PF	19-JUL-1996; 96FR-0009077.	
XX		
PR	19-JUL-1996; 96FR-0009077.	
XX		
PA	(INRM) INSERM INST NAT SANTE & RECH MEDICALE.	
XX		
PI	Pourcel C, Soullillon JP, Vanhove B;	
XX		
DR	WPI, 1998-112876/11.	
XX		
PT	N-PDB: AAW49453.	
XX		
PT	Transgenic non-human donors of organs for human recipients -	
XX	containing DNA encoding antibodies that inhibit graft rejection	


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DB 120 vldnyakqkltvgtltvavqylychyleel llsanlylmqahkvtlyimvddistmpl 179
UY 177 ELGPIRSFKVFKIKFEKKWQDLSMMHMKTKTGENI VANIQHVPDLFCMDVQVQDKRGV 236
DB 180 elqplrsfkvtckvckskckwqdlssmmnk lphbllhqlhevdl ltmvldqv lqmnlyq 239
UY 247 ETLDSVADLQAWWYKADPNPTFERKRSAAVTPFGGDEHYNAALFGPTGVANTG 296
DB 240 elqpsvqqlqawwqkaphdcltycrkcsaay lplqadlyyhaal llyqplqylnltq 299
UY 297 ETLDSVADLQAWWYKADPNPTFERKRSAAVTPFGGDEHYNAALFGPTGVANTG 356
DB 400 ectrkqllqdkendleawwheshlnkyl llnkprkl llspeywdyhuqmsvdl ltklaw 359
UY 457 QIKRYNVVNNV 368
DB 460 qkkyulvrtnl 371

RESULT 5
AAR62508
ID AAR62508 standard; Protein: 459 AA.
XX
AC AAR62508;
XX
PT 26-JUN-1995 (first entry)
XX
DE Galactosyl transferase clone product.
XX
KW Galactosyl (1,3) galactosyl transferase; xenograft; transplant;
  rejection.
XX
OS Sus scrofa domestica.
XX
PN M099421799 A.
XX
PD 29-SEP-1994.
XX
PE 15-MAR-1994; 94MO-A000126.
XX
PR 16-MAR-1994; 94AD-0007854.
XX
PA (AUST-) AUSTIN RES INST.
XX
PI McKenzie IFC, Sandrin MS;
XX
PR WP1: 1994-417019/39.
XX
DR N-PSDB: AAG74712.
XX
XX
XX DNA sequences encoding Gal alpha (1,3)galactosyl transferase
  and clones contg. such sequences are used in xenograft therapies
  XX
  PS Disclosure: Page 49; 56pp; English.
  CC The sequence is that of the product of the porcine Gal-alpha (1,3)
  CC galactosyl transferase gene which produces a Gal epitope on the
  CC surface of porcine cells. This epitope is recognized by antibodies
  CC which are responsible for hyperacute rejection of xenotransplanted
  CC pig cells, tissues and organs.
  CC See also AAR62507.
  CC
  XX
  SO Sequence 459 AA;

Query Match 82.1%; Score 1648.5; DB 15; Length 359;
Best Local Similarity 81.5%; Ident. No. 176-158;
Matches 303; Conservative 30; Mismatches 22; Indels 17; Gaps 4;
1 MNVAKVTLISMLVSTVAVFVWFVHSFSLFWMINSRNFGVAGSSIQKGMILPRPFNN 60
DB 1 mnvakvvtlslvstvtvvtwvyl-----ntprv-qssdqrfwvlpwvln 47

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UY 61 G---YHEEDGIDNEEKDORND--ESKIKLSIMFNEKRPVAVTMTKRAVNVWECTYNA 116
DB 48 qlshyhereedleqneqckgkrkcdnqlqlp lvdlnpckprrvvl ltrkavvweql ytra 107
UY 117 VLIDNYAKQKTTVGLIYFAVGRYTFHTLEFLLTSANKHFWGHIYLYINWDVSRML 176
DB 108 vldnyakqkltvgtltvavqylychyleel llsanlylmqahkvtlyimvddistmpl 167
UY 177 ELGPIRSFKVFKIKFEKKWQDLSMMHMKTKTGENI VANIQHVPDLFCMDVQVQDKRGV 236
DB 168 elqplrsfkvtckvckskckwqdlssmmnk lphbllhqlhevdl ltmvldqv lqmnlyq 227
UY 227 ETLDSVADLQAWWYKADPNPTFERKRSAAVTPFGGDEHYNAALFGPTGVANTG 296
DB 228 elqpsvqqlqawwqkaphdcltycrkcsaay lplqadlyyhaal llyqplqylnltq 287
UY 297 ETLDSVADLQAWWYKADPNPTFERKRSAAVTPFGGDEHYNAALFGPTGVANTG 356
DB 288 ectrkqllqdkendleawwheshlnkyl llnkprkl llspeywdyhuqmsvdl ltklaw 347
UY 457 QIKRYNVVNNV 368
DB 448 qkkyulvrtnl 359

RESULT 6
AAR90573
ID AAR90573 standard; Protein: 359 AA.
XX
AC AAR90573;
XX
PT 08-APR-1996 (first entry)
XX
DE Pig alpha(1,3)-galactosyltransferase.
XX
KW Alpha(1,3)galactosyltransferase; xenograft hyperacute rejection;
  transplantation; galactose alpha(1,3) galactose.
XX
OS Sus scrofa.
XX
PN M09534202-A1.
XX
PD 21-DEC-1995.
XX
PE 14-JUN-1995; 95MO-US07554.
XX
PR 21-JUN-1994; 94US-0278282.
XX
PR 15-JUN-1994; 94US-0260201.
XX
XX
XX (ALEX-) ALEXION PHARM INC.
XX
XX (AUST-) AUSTIN RES INST.
XX
PI Fodor WJ, McKenzie IFC, Rother RP, Sandrin MS, Squinto SP;
XX
DR WP1: 1996-049326/05.
XX
DR N-PSDB: AAT12242.
XX
XX
XX Redn. of rejection of xenogeneic cells following transplantation
  XX by introducing a vector expressing fucosyl:transferase into the
  XX cells
  XX
  PS Example 2; Page 52-54; 69pp; English.
  CC Pig alpha(1,3)-galactosyltransferase (AAR90573) was expressed in
  CC monkey COS cells following transfection of the cells with
  CC vector pGT which contains an insert including the encoding
  CC cDNA (AAT12242). Co-transfection of these cells with vector pHT
  CC encoding human H-transferase (AAR90572) resulted in a reduction in
  CC the levels of galactose alpha(1,3) galactose epitopes expressed
  CC by the cells.
  CC
  XX
  SO Sequence 359 AA;

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XX	AARJ3750:
AC	
DT	07-NOV-1991 (first entry)
XX	
DE	GDP-Fuc:[beta-D-Gal(1,4/1,3)]-D-GlcNAc(Glc)alpha(1,3/1,4)
DE	-fucosyltransferase.
XX	
KW	Glycosyltransferase.
XX	
US	Mus musculus.
XX	
PN	W09112340-A.
PD	22-AUG-1991.
XX	
PF	14-FEB-1991; 91WO-US00899.
XX	
PR	12-DEC-1990; 90US-0627621.
PR	14-FEB-1990; 90US-0479858.
PR	14-FEB-1990; 90US-0480133.
XX	
PA	(UNMT) UNIV OF MICHIGAN.
XX	
PI	Lowe JB;
XX	
DR	WP1: 1991-267151/36.
UR	N-PSDB: AAQ13331.
PT	
XX	
PS	Disclosure: Fig 2; 155pp; English.
XX	
CC	The amino acid sequence codes for a protein capable of functioning as a UDP-Gal:[beta-D-Gal(1,4)]-D-GlcNAc alpha (1,3)galactosyltransferase. The products of this enzyme, sub-terminal alpha CC (1,3) and alpha(1,4) fucose residues are used in the post- CC transnational modification of the oligosaccharides on cell-surface, intracellular or secreted proteins or lipids. These can be used for CC the prodn. of diagnostics and therapeutics. There is a single CC transmembrane domain consisting of a 19 amino acid hydrophobic CC segment flanked by basic residues and a large (presumably CC catalytic) C-terminal domain that would ultimately be targeted to CC the lumen of the Golgi. It has two potential N-glycosylation sites CC indicating that as with other glycosyltransferases, it may be CC synthesised as a glycoprotein. It is representative of a Type II CC transmembrane protein. See also AARJ3749-R13752.
XX	
SU	Sequence 394 AA:
Query Match	73.5%; Score 1476.5; DB 12; Length 394;
Best Local Similarity	72.2%; Pred. No. 5.2e-141;
Matches 268; Conservative 41; Mismatches 47; Indels 15; Gaps	
QY	1 MNVKCKVITISMIYVSTVIIVEMEWIHSPEGSLFWINPNSRNPVGGSSIOKGMGLRWENN 60
Db	36 mnnvkqvlilmlivstlvvvtlwey-----rfipevgentwqkdwfpfwtkn 83
QY	61 GVH--EPDGIDNEEKQDNED-SKLKLDWFNPPKREVVVTMKKAPVVEGTYNRAV 117
Db	84 gthsygdeuvetrekryngdrlepeqlwdwnpknrpdlvtlpkkapiveggydta 143
QY	118 LDNYAKKKRTVGLTVFAVGRTIEHYLEEFLLSANKHEMVGHPVIFYIWNVDVSRRMPLE 177
Db	144 lekyaatqklvtglvtiaavgkyiehyledfllesadmylmvgtrvltiyvmldtsrmpvh 203
QY	178 IGPGRSFVPFKRKPKRMODISMAMKRTIGETVAHIQHEVFPLCDMDVDGVFOOKPCVE 237
Db	204 lnphtsqvteirsekrtwgdi smnmrmkclgehlldhiqhvevdllcmadvdytqdntfyve 263

[illegible]

RESULT 11

ID	AA	standard; Protein; 394 AA.
1	AAK45935	standard; Protein; 394 AA.

AC AAR45935;

DT 26-JUL-1994 (first entry)
XX

DE A glycosyltransferase.
XX

KM glycosyltransferase; fucosyltransferase; GDP-Fuc; *in vitro*; cell surface; oligosaccharide.

OS Homo sapiens

PN WO9402616-A

PD 03-FEB-1994

PF 20-JUL-1993; 93WO-US06703.

PR 20-JUL-1992; 92US-0914281.

PA (UNMI) UNIV MICHIGAN.

PI Lowe JB;
xy

DR WPI: 1994-048874/06.
DR N-PSDP: 22056007

	DNA fragment	0000
XX		
DT		

PT blood and determine

XX
PS
Disclosure: Fig 2: 249pp: English

XX The sequence is that of a human glycosyl transferase. The enzyme
CC

CC may be non glycosylated. This prevents premature loss of enzyme activity. It can also be used in in vitro reactions to modify cell CC activity.

CC See also AAR45933-9.

..... SQ Sequence 394 AA;

Best Local Similarity 72.28; Pred. No. 5.2e-141;

THE EFFECT OF ORGANIZATIONAL AGE ON THE ACQUISITION OF KNOWLEDGE

111
36
176

61 CVH--EEDCDINEEKE/BNIDE-SIKIKI SIEWENDEKBUW/MTKWKADVWNEGTYNBAY

84 a t h s v a d h v e a r r o k a n a d r i e o o l w d f n k n r n d v l t v t n w k a n i v w e a t v d t a l

QV 118 LDNYAKOKITVGLTVEAGRYTEHYLEEFITSAKHEMVQHPVTEYIMVDDVSRMPLI

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144 lekvatokltvlfavqvienvlflesadmyfivmhvifvymiddtsrmpvvh 203
Dp

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